1   # VIRTUALIZATION OF iSCSI STORAGE

2   ## ABSTRACT OF THE INVENTION

3   This invention describes methods, apparatus and systems for virtualization of

4   iSCSI storage. Virtual storage isolates the clients from the management of

5   physical storage resources. In this invention, each physical storage device

6   supports multiple logical units (LUNs). Each supported LUN is associated with a

7   separate TCP port number and iSCSI commands received on a given port

8   implicitly refer to the associated LUN. An iSCSI host addresses each logical unit

9   of storage (LUN) with a virtual IP address and port number. Using an address

10   translation table, the virtualization gateway rewrites the destination IP address in

11   the header of an incoming packet as well as the destination port number to

12   correspond to the target physical LUN. Migration of logical units across physical

13   storage devices is supported by changing the address translation entries at the

14   gateway; and the gateway can be provided by a standard network router with

15   support for address translation.